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मानक

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IS 8534-4 (1995): Mine tub couplings and drawbars, Part 4: F-Shackle and link type [MED 8: Mining Techniques and Equipment]



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“Knowledge is such a treasure which cannot be stolen”

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भारतीय मानक

खान टब युग्मन और कर्षण शलाकाएँ

भाग 4 एफ-शैकल और लिंक टाईप

(पहला पुनरीक्षण)

Indian Standard

MINE TUB COUPLINGS AND DRAWBARS

PART 4 F-SHACKLE AND LINK TYPE

(First Revision)

UDC 622.625.24.013

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BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

FOREWORD

This Indian Standard (Part 4) (First Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Mine Transportation Sectional Committee had been approved by the Heavy Mechanical Engineering Division Council.

This standard on mine tub couplings is one of the series of standards on mine tub couplings. Other parts of this standard are:

IS 8534 (Part 1) : 1994	Mine tub couplings and drawbars : Part 1 General requirements (<i>first revision</i>)
IS 8534 (Part 2) : 1995	Mine tub couplings and drawbars : Part 2 C-link and D-shackle type (<i>first revision</i>)
IS 8534 (Part 3) : 1995	Mine tub couplings and drawbars : Part 3 R-shackle and link type (<i>first revision</i>)
IS 8534 (Part 5) : 1995	Mine tub couplings and drawbars : Part 5 Drawbars
IS 8534 (Part 6) : 1995	Mine tub couplings and drawbars : Part 6 Hook and D-shackle type

This standard (Part 4) was first published in 1977. It was covering requirements of bow shackle type coupling which could be used with special drawbars and not on the drawbars having D-shackles at their ends in accordance with IS 4001 : 1976 'Mine tubs (*first revision*)'. This standard has therefore been revised to modify the design of coupling. The design of drawbar of mine tubs has also been modified and is included in IS 8534 (Part 5) : 1995.

Other important change involved in this revised version is the application of only one size of coupling for use upto a safe working load of 50 kN. Earlier three different sizes for 10, 20 and 30 kN safe working load were specified in this standard.

Couplings specified in this standard shall be used in conjunction with flat type (Type B) or plate type (Type C) drawbars specified in IS 8534 (Part 5) : 1995.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Indian Standard

MINE TUB COUPLINGS AND DRAWBARS

PART 4 F-SHACKLE AND LINK TYPE

(First Revision)

1 SCOPE

This standard (Part 4) specifies the requirements of F-shackle and link type mine tub coupling used for connecting mine tubs in a set of tubs and having a maximum safe working load of 50 kN.

2 REFERENCES

The following Indian Standards are necessary adjuncts to this standard:

<i>IS No.</i>	<i>Title</i>
8534 (Part 1) : 1994	Mine tub couplings and drawbars : Part 1 General requirements (<i>first revision</i>)
8534 (Part 2) : 1995	Mine tub couplings and drawbars : Part 2 C-link and D-shackle type (<i>first revision</i>)
8534 (Part 3) : 1995	Mine tub couplings and drawbars : Part 3 R-shackle and link type (<i>first revision</i>)

3 DIMENSIONS

3.1 Assembly and Nomenclature — See Fig. 1.

3.2 F-shackle

3.2.1 For Straight Locking Arrangement — See Fig. 2.

3.2.2 For Taper Locking Arrangement — See Fig. 3.

3.3 Link and Locking Pins

Link and locking pins (both for straight locking arrangement as well as for taper locking arrangement) shall conform in all respect with IS 8534 (Part 3) : 1995.

4 TOLERANCES

Tolerances on components of F-shackle and link type of coupling shall be as specified in 4 of IS 8534 (Part 2) : 1995.

5 DESIGNATION

A mine tub coupling of F-shackle and link type with taper locking arrangement conforming to this standard shall be designated as:

Tub Coupling, F-shackle and Link, Taper,
IS 8534 (Part 4)

6 GENERAL REQUIREMENTS

Mine tub couplings of F-shackle and link type shall conform in all respect with IS 8534 (Part 1) : 1994.

7 MARKING

7.1 Each coupling and drawbar shall be permanently and legibly marked on a non-vital component with the following information:

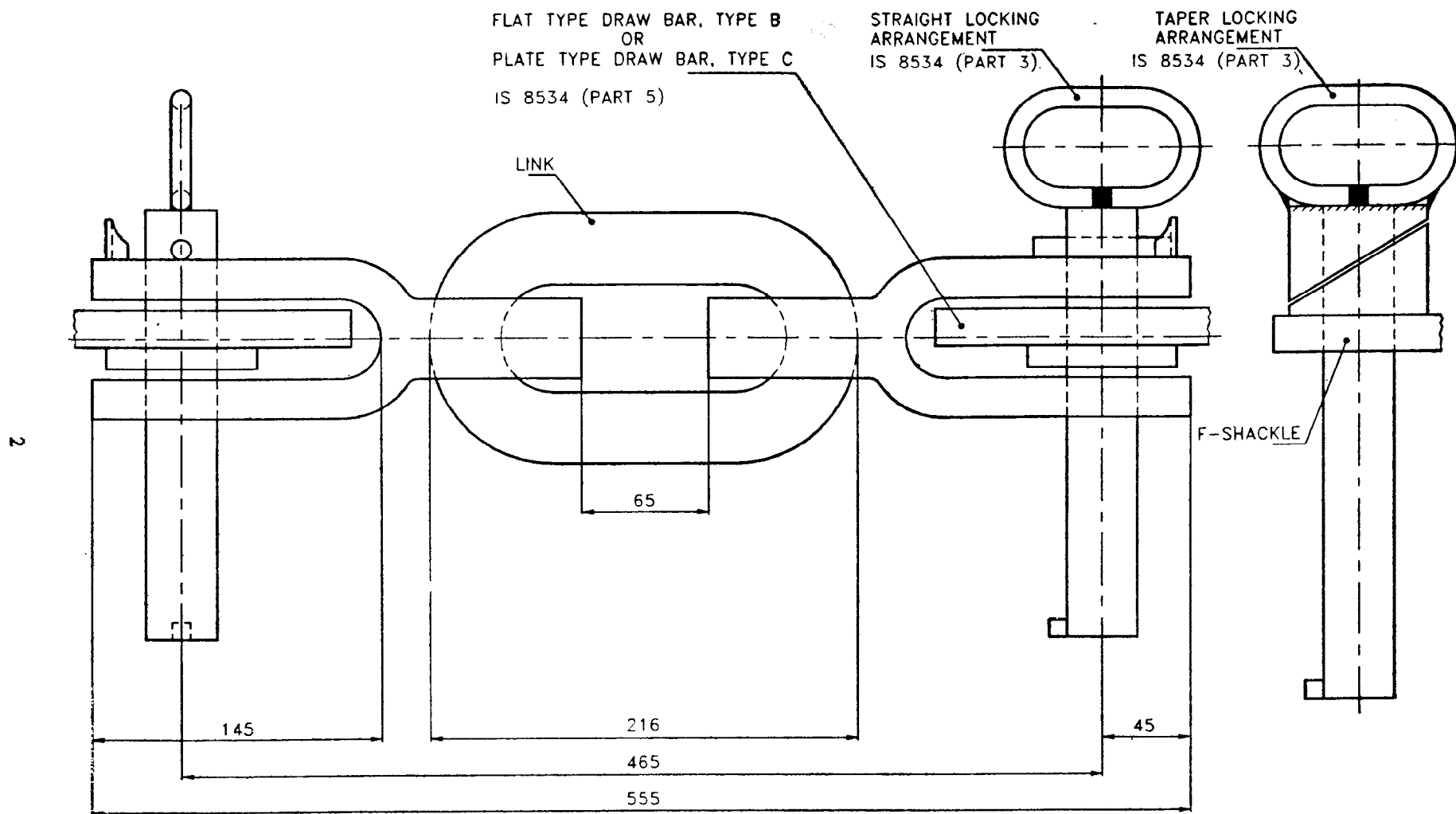
- a) Manufacturer's identification mark;
- b) Safe working load in kN;
- c) Type of heat treatment, given; and
- d) Identification mark bearing with manufacturer's certificate of test examination [see Annex A of IS 8534 (Part 1) : 1994].

7.1.1 The stamps used for marking shall be of 5 mm size. Care shall be taken that the indentation is neither too sharp nor excessive in depth.

7.2 BIS Certification Marking

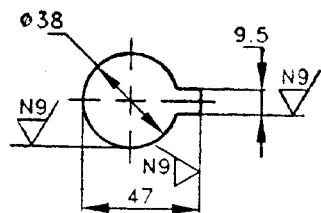
7.2.1 The C-link and D-shackle type mine tub coupling may also be marked with the Standard Mark.

7.2.2 The use of the Standard Mark is governed by the provisions of Bureau of Indian Standards Act, 1986 and the Rules and Regulations made thereunder. The details of conditions under which the licence for the use of Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.

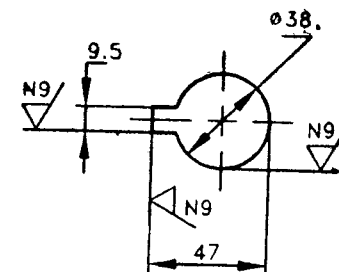


All dimensions in millimetres.

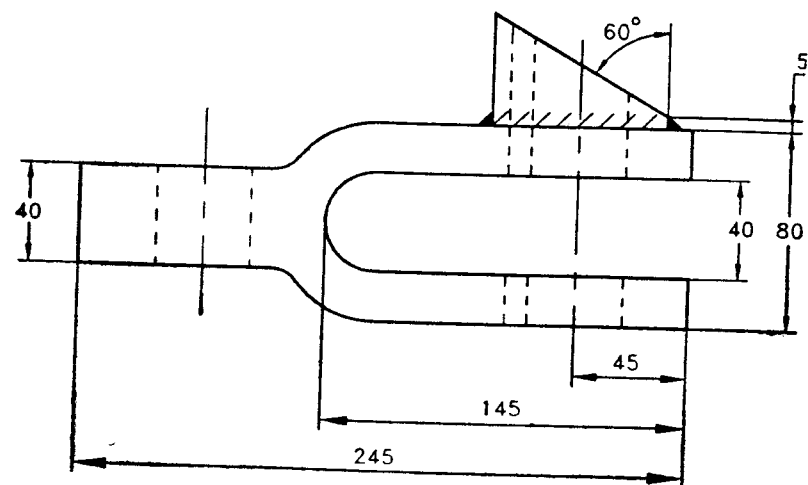
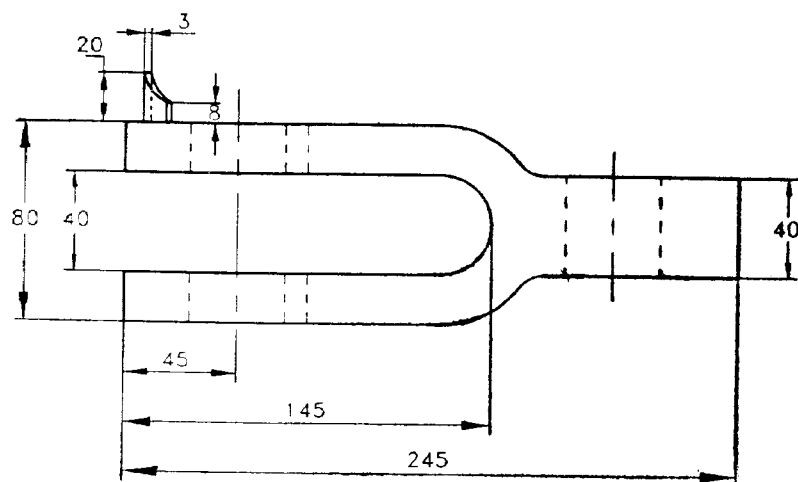
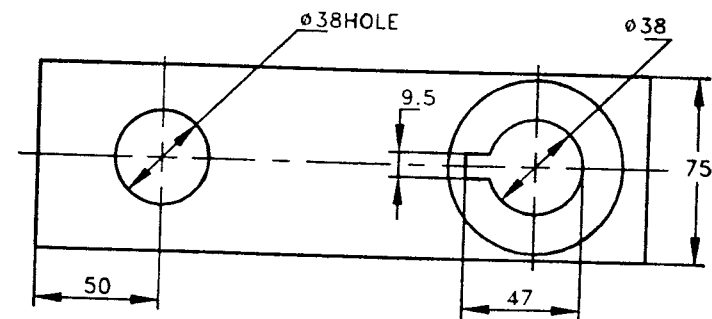
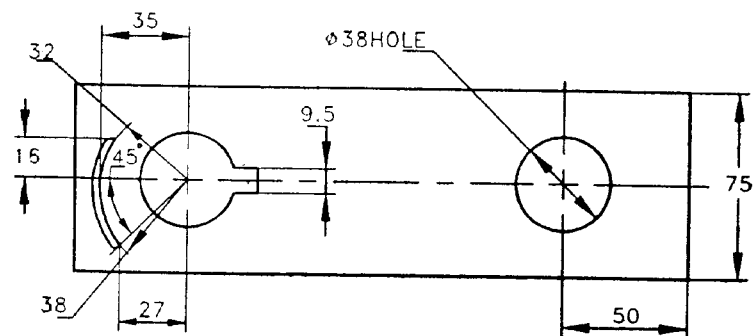
FIG. 1 ASSEMBLY AND NOMENCLATURE



DETAIL OF BORE



DETAIL OF BORE



All dimensions in millimetres.

FIG. 2 F-SHACKLE FOR STRAIGHT LOCKING ARRANGEMENT

All dimensions in millimetres.

FIG. 3 F-SHACKLE FOR TAPER LOCKING ARRANGEMENT

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This Indian Standard has been developed from Doc : No. HMD 8 (0048).

Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

BUREAU OF INDIAN STANDARDS

Headquarters:

Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi 110002

Telephones : 331 01 31, 331 13 75

Telegrams : Manaksanstha
(Common to all Offices)

Regional Offices :

Central : Manak Bhavan, 9 Bahadur Shah Zafar Marg
NEW DELHI 110002

Telephone

{ 331 01 31
{ 331 13 75

Eastern : 1/14 C. I. T. Scheme VIII M, V. I. P. Road, Maniktola
CALCUTTA 700054

{ 37 84 99, 37 85 61
{ 37 86 26, 37 86 62

Northern : SCO 335-336, Sector 34-A, CHANDIGARH 160022

{ 60 38 43,
{ 60 20 25,

Southern : C. I. T. Campus, IV Cross Road, MADRAS 600113

{ 235 02 16, 235 04 42
{ 235 15 19, 235 23 15

Western : Manakalaya, E9 MIDC, Marol, Andheri (East)
BOMBAY 400093

{ 632 92 95, 632 78 58
{ 632 78 91, 632 78 92

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